

Abstract

The present invention allows the screening of previously established genebanks or libraries by proxy for genes encoding secreted, partially secreted, or cell surface-displayed polypeptides of industrial interest, such as enzymes, receptors, cytokines, peptide hormones
5 etc. that would not likely have been isolated using conventional screening assays. A method for isolating genes encoding secreted, partially secreted, or cell surface displayed polypeptides from existing gene libraries is described in which the endogenous secretion signal sequences are detected using an *in vitro* polynucleotide insertion reaction where the inserted polynucleotide comprises a promoter-less and secretion signal-less secretion reporter.